

APPLICATION NO. 09/326,676  
DOCKET NO. P1026/N8369**REMARKS**

Claims 1-23 were pending in the above-captioned application. Claims 1, 4-7, 10-12, 14, 17 and 18 have been amended, claims 13 and 21-23 canceled, and claims 24-29 added herein in order to more clearly define and fully protect Applicants' invention. Reconsideration and allowance of all pending claims 1-12, 14-20 and 24-29 is therefore requested.

Applicants gratefully acknowledge the interview held April 20, 2005 between Examiner Owens, and the undersigned, Daniel W. Krassowski, Ph.D. and Brad Reis of assignee Advanced Energy Technology Inc., at which time a demonstration of the formation of compressed sheets of exfoliated graphite was conducted and the distinctions between the cited art and the claimed invention of the above-captioned application was had.

During the April 20 interview, it was agreed that amendment of the claims to specify that both major surfaces of the claimed thermal interface sheet are coated with the protective coating would distinguish the claimed invention from the cited art. In addition, it was also agreed that claims which are specific in distinguishing the claimed protective coating from an adhesive, by including a limitation to the effect that the claimed protective coating is not interposed between the thermal interface

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and a component against which it abuts (thus obviating the need for a protective coating), would also distinguish the claimed invention from the cited art.

By amendment herein, independent claims 1 and 10 now include claim the inventive thermal interface where both major surfaces are coated with the protective coating (claims 1, 5-7, 10-12, 14 and 18 have also been amended to further make clear that what is meant by "flexible graphite" is sheets of compressed particles of exfoliated graphite, and claims 4, 5, 12 and 17 amended to correct their dependency). In addition, claims 24-29 have been added herein to clearly claim the embodiment where the claimed protective is not interposed between the thermal interface and a component against which it abuts. Thus, the claims as currently configured patentably distinguish the claimed invention from the cited prior art.

More specifically, as discussed during the April 20 interview, nothing in any of the cited patents to Shane et al. (U.S. 3,404,061), Liu (U.S. 6,262,893), Ingraham et al. (U.S. 6,075,287) and Unger et al. (U.S. 5,834,337), even if combined, discloses or suggests the inventions of the claims of the above-captioned application. Applicants' invention relates to a protective coating for a flexible graphite sheet in order to inhibit graphite flaking. The references cited relate to the use of an adhesive to adhere a thermal interface to an electronic component. Since the adhesive is provided to the portion of the interface material to be applied to the electronic component, it is provided at an area where flaking of graphite will not occur. Thus, whether it can be

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classified as a protective coating or not, such an adhesive is not placed to inhibit flaking of the particles of graphite. Rather, it is the surfaces other than those adhered to, or in contact with, the electronic component where flaking of graphite can occur and where the provision of a protective coating can inhibit or prevent such flaking.

In addition, since the references discuss adherence rather than protection from flaking, neither can the references suggest the invention of the current claims. Indeed, as noted, an adhesive is used for a specific purpose in an area of the interface material where, even should flexible graphite sheet be employed, flaking is not an issue. Thus, there can be no teaching or suggestion of the invention of the rejected claims in the disclosures of any of the cited patents.

Therefore, all rejections should be withdrawn.

### CONCLUSION

Based on the foregoing amendments and remarks, it is believed the above-captioned application is now in condition for allowance. If there is any matter which prevents the allowance of any of these claims, the Examiner is requested to call, collect, at 615-242-2400, to arrange for an interview which may further expedite prosecution.

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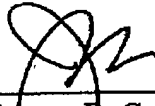
Along with the filing of this Response, a Request for Continued Examination is also being filed herewith.

Applicants hereby petition the Commissioner for a one month extension of time to response to the Office Action, extending the time to respond from April 11, 2005 to May 11, 2005. The Commissioner is authorized to charge the extension fee of \$120 to Deposit Account No. 50-1202.

In addition, the Commissioner is also authorized to charge the excess claims fee of \$200 (for four additional claims) to Deposit Account No. 50-1202.

The Commissioner is also authorized to charge any deficiency associated with the filing of this Response to Deposit Account 50-1202.

Respectfully submitted,

  
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James E. Cartiglia  
Registration No. 30,738  
WADDEY & PATTERSON  
A Professional Corporation  
Customer No. 23456  
ATTORNEY FOR APPLICANTS

Waddey & Patterson  
414 Union Street, Suite 2020  
Bank of America Plaza  
Nashville, TN 37219  
(615) 242-2400

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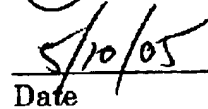
**CERTIFICATE OF FACSIMILE TRANSMITTAL**

I hereby certify that this **RESPONSE TO OFFICE ACTION (9 pages); Certificate of Facsimile transmittal (1 page); and Request for Continued Examination (1 page)** are being sent via facsimile to the United States Patent and Trademark Office at 703.872.9306.

James R. Cartiglia



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Signature  
Registration Number 30,738



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Date